



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------|------------------|
| 09/894,693  | 06/27/2001  | Peter Churchyard     | NETAP006             | 6452             |
| 28875   | 7590        | 03/29/2005           | EXAMINER             |                  |
| Zilka-Kotab, PC<br>P.O. BOX 721120<br>SAN JOSE, CA 95172-1120 |             |                      | HUTTON JR, WILLIAM D |                  |
|   |             |                      | ART UNIT             | PAPER NUMBER     |
|   |             |                      | 2179                 |                  |

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/894,693

Applicant(s)

CHURCHYARD, PETER

Examiner

Doug Hutton

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-13 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-13 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### ***Applicant's Response***

In Applicant's Response dated 23 November 2004, Applicant amended Claims 1, 5, 8, 12, 15 and 16, added new Claims 17-19, cancelled Claims 7 and 14, and argued against all objections and rejections previously set forth in the Office Action dated 27 October 2004.

The objections to the Specification are withdrawn. All rejections previously set forth are withdrawn.

### ***Claim Objections***

Claims 1, 12 and 15 are objected to because of the following informalities:

- the phrase "based on the *the* tag structure state machine" in Claim 1, Lines 8-9 should be amended to — based on the tag structure state machine — so that it reads more clearly; Claims 12 and 15 have the same problem.

Claim 7 is objected to because of the following informalities:

- the term "the" at the beginning of Lines 16, 18 and 20 should be deleted because the "computer code" specified in each line is not previously mentioned in the claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al., U.S. Patent No. 6,763,499, in view of the admitted prior art (hereinafter, Admission).

***Claim 1:***

Friedman discloses a method for reformatting a tag-based code containing at least one corresponding beginning and end tag pair (see Column 5, Lines 37-47 – Friedman discloses this limitation in that the XML parser utilizes an element stack that “reformats” the XML document as it is parsed), comprising:

- locating each beginning and end tag of the tag-based code (see Column 13, Line 5 through Column 14, Line 40 – Friedman discloses this limitation in that the XML parser locates start and close tags of the XML as it is parsed);
- separating distinct tags and data associated therewith into separate lines (see Column 13, Line 5 through Column 14, Line 40 – Friedman discloses this limitation in that the XML parser pushes an element onto the element stack after encountering the start tag for the element; each element that is pushed onto the element stack includes “data associated therewith” in that any associated namespaces are saved with the corresponding element in the element stack);

- maintaining a tag structure state machine for determining a tag structure corresponding to each line (see Column 4, Lines 15-18; Column 12, Line 50 through Column 14, Line 40 – Friedman discloses this limitation in that the XML parser maintains the state of each element in order to retain the hierarchical structure of the XML as it is parsed); and
- delineating each line with a representation of a tag structure corresponding to the line based on the state machine of the tag structure (see Column 4, Lines 37-42; see Column 11, Lines 26-43 – Friedman discloses this limitation in that the XML parser creates a unique token that is placed on the element stack in order to maintain the proper state as the XML is parsed),
- wherein said separating distinct tags and data associated therewith into separate lines includes:
  - placing each beginning tag and any data associated therewith prior to a next beginning tag, if any, on a new line (see Column 10, Line 50 through Column 13, Line 4 – Friedman discloses this limitation in that the XML parser, each time it encounters a start tag, pushes the start tag, and any associated namespaces, onto the element stack; upon subsequently encountering a different start tag, the XML parser pushes the different start tag, and any associated namespaces, onto the element stack);
  - placing each end tag on a same line as any data associated therewith immediate before the end tag (see Column 10, Line 50 through Column 13, Line 4 – Friedman discloses this limitation in that the XML parser, upon

encountering a close tag, removes the corresponding element from the element stack; thus, the XML parser places the end tag and any associated data "on a same line"); and

- initiating a new line each time an end tag is processed if the end of the file is not yet reached (see Column 10, Line 50 through Column 13, Line 4 – Friedman discloses this limitation in that the XML parser, upon encountering a close tag, removes the corresponding element from the element stack and looks for the next element tag; if an element tag is found, then processing is continued, and if no element tag is found, then processing is terminated; thus, the XML parser "initiates a new line" whenever a close tag is processed if the end of the file is not yet reached).

Friedman fails to expressly disclose line-based script tools that are utilized to process the reformatted code.

Admission teaches line-based script tools that are utilized to process reformatted code (see Page 1, Line 14 through Page 2, Line 4 in the Specification of the present invention — Admission teaches this limitation, as indicated in the cited text), for the purpose of automatically editing the code of tag-based files (see Page 1, Line 20 through Page 2, Line 4 in the Specification of the present invention).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Friedman, to include line-based script tools that are utilized to process the reformatted code, for the purpose of automatically editing the code of tag-based files, as taught by Admission.

*Claim 2:*

Friedman discloses the method of Claim 1, wherein said maintaining the tag structure state machine includes maintaining a LIFO tag stack (see Column 12, Line 49 through Column 13, Line 4 – Friedman discloses this limitation in that the XML parser removes the top frame from the element stack when a corresponding close tag is encountered).

*Claim 3:*

Friedman discloses the method of Claim 2, wherein said maintaining the tag structure state machine includes inserting each beginning tag onto the LIFO tag stack upon locating the beginning tag (see Column 10, Lines 60-67 – Friedman discloses this limitation in that the XML parser pushes an element onto the element stack when a start tag is encountered).

*Claim 4:*

Friedman discloses the method of Claim 1, wherein said maintaining the tag structure state machine includes removing a beginning tag from the LIFO tag stack upon locating a corresponding end tag (see Column 12, Line 49 through Column 13, Line 4 – Friedman discloses this limitation in that the XML parser removes the top frame from the element stack when a corresponding close tag is encountered; this “top frame” includes the start tag of the element).

*Claim 5:*

Friedman discloses the method of Claim 1, wherein said delineating each line with a representation of a tag structure corresponding to the line based the tag structure state machine includes prefixing each line with said representation (see Figure 5; see Column 11, Lines 26-43 – Friedman discloses this limitation in that the XML parser “prefixes” each element on the element stack with the unique token).

*Claim 6:*

Friedman discloses the method of Claim 1, wherein said tag-based code is selected from the group consisting of HTML, XML, and C (see Column 4, Lines 30-33 – Friedman discloses this limitation in that the XML parser parses XML).



*Claims 8-13:*

Claims 8-13 merely recite computer software that performs the methods of Claims 1-6, respectively. Friedman also discloses computer software that performs the methods disclosed therein. Thus, Claims 8-13 are rejected using the same rationale set forth in the above rejections for Claims 1-6.

*Claim 15:*

Friedman discloses a method for processing a tag-based code containing at least one corresponding beginning and end tag pair using script tools (see Column 5, Lines 37-47 – Friedman discloses this limitation in that the XML parser comprises “script tools” that “process” the XML as it is parsed), comprising:

- reformatting the tag-based code (as indicated in the above rejection for Claim 1, Friedman discloses this limitation); and
- utilizing script tools to process the reformatted code (as indicated in the above discussion, Friedman discloses “script tools” that “process” the XML), wherein said reformatting includes:
  - locating each beginning and end tag of the tag-based code;
  - separating distinct tags and data associated therewith into separate lines;
  - maintaining a tag structure state machine for determining a tag structure corresponding to each line; and
  - delineating each line with a representation of a tag structure corresponding to the line based on the state machine of the tag structure

(as indicated in the above rejection for Claim 1, Friedman discloses these limitations).

*Claim 16:*

Friedman discloses the method of Claim 15, further comprising stripping each line of the processed and reformatted code of the delineation representing the tag structure corresponding to the line (see Column 10, Line 50 through Column 13, Line 4 – Friedman discloses this limitation in that the XML parser removes the each element from the element stack to present that portion of the web page to the user and continues processing the XML; thus, the XML parser “strips” each line of XML of its “delineation”).

*Claim 17:*

As indicated in the above rejection, Friedman, in view of Admission, discloses/teaches every element of Claim 1.

Friedman fails to expressly disclose line-based script tools that include a “grep” command.

Admission teaches line-based script tools that include a “grep” command (see Page 1, Line 14 through Page 2, Line 6 in the Specification of the present invention – Admission teaches this limitation, as indicated in the cited text), for the purpose of automatically editing the code of tag-based files (see Page 1, Line 20 through Page 2, Line 4 in the Specification of the present invention).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Friedman, to include line-based script tools that include a “grep” command, for the purpose of automatically editing the code of tag-based files, as taught by Admission.

*Claim 18:*

Friedman discloses a method, wherein a verification operation is performed to verify that each end tag matches an associated beginning tag located at a top of a LIFO tag stack, and to throw an exception, if a result of the verification operation is false (see Column 12, Line 49 through Column 13, Line 4; see Column 14, Lines 40 – Friedman discloses this limitation in that, upon encountering a close tag, the XML parser removes the top frame of the element stack only when the current top namespace matches the namespace in the top frame of the element stack; otherwise, the parser requests the parent of the current top namespace and another comparison is performed; this process is performed so that the close tags are matched with corresponding open tags).

***Allowable Subject Matter***

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

*Claim 19:*

The closest prior art is Friedman, which discloses reformatting an XML document by parsing the document and separating the tags and data associated therewith onto separate lines of an element stack. Concurrently, a state machine maintains the hierarchy of the tags within the document by delineating each line with a tag structure representation corresponding to the line.

Friedman fails to disclose, however, an element stack that includes a line containing an embedded tag that is embedded within another tag, wherein the tag structure representation corresponding to that particular line ***includes both the embedded tag and the other tag***, and wherein the embedded tag is located ***at the top of a LIFO tag stack above the other tag***.

A search of the prior art located a LIFO tag stack with an embedded tag above another tag (see Girardot, US 2003/0023628). However, the prior art fails to disclose or suggest the combination of elements recited in Claim 19.

***Response to Arguments***

Applicant's arguments filed 23 November 2004 have been fully considered but they are not persuasive.

*Arguments for Claim 1:*

Applicant argues that Friedman fails to disclose “placing each end tag on a same line as any data associated therewith immediate before the end tag” because Figure 5 does not include end tags in the element stack. See *Applicant’s Response* – Page 8, fourth paragraph through Page 9, first paragraph.

The examiner disagrees.

As indicated in the above rejection for Claim 1, Friedman discloses this limitation in that the XML parser, upon encountering a close tag, removes the corresponding element from the element stack. In doing so, the XML parser pieces together the close tag and any associated data. Stated another way, the signal to remove an element from the element stack is when the parser encounters the corresponding close tag. Thus, the XML parser does “places” the close tag and any associated data “on a same line” of the element stack before removing that element from the stack.

*Arguments for Claims 1, 17 and 18:*

Applicant argues that Friedman fails to disclose:

- “line-based script tools [that] are utilized to process reformatted code;”
- “line-based script tools [that] include a ‘grep’ command;” and
- “wherein a verification operation is performed to verify that each end tag matches an associated beginning tag located at a top of a LIFO tag stack, and to throw an exception, if a result of the verification operation is false.”

See *Applicant's Response* – Page 9, fourth paragraph through Page 10, fourth paragraph.

The examiner disagrees.

Applicant's arguments have been considered but are moot in view of the new grounds of rejection for Claims 1, 17 and 18.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is (571) 272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

Art Unit: 2179

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH

March 8, 2005

A handwritten signature in black ink, appearing to read "Heather Herndon", is positioned above the printed name.

HEATHER R. HERNDON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100